

RUNWAY LIGHTING

HIRL

High-Intensity Elevated Edge Light

Compliance with Standards

T/C: K311, Type HIRL, MITL TP 312 - with CSA Attestation.

ICAO: Annex 14, Vol. 1 Para. 5.3.9 to 5.3.11

FAA: L-862 to AC 150/5345-46A.

Uses

- High-intensity edge lighting for runways up to 60 m wide, in CAT I, II, and III conditions.
- Medium-intensity runway edge and threshold/end lighting.
- The 5NQ3850CU fixture also has omnidirectional output for circling guidance.

Features

- Low profile and small in size to withstand high jet blast, even when installed at threshold/runway end.
- Smooth outer glass resists dirt, pitting and damage compared to large lenses of old C1 type fixture.
- 2" Slipfitter provides for mounting on standard 2" frangible couplings for overall height ranges of 350 mm to 760 mm.
- Energy-efficient optics utilize a 150 W lamp for H.I. edge light applications, compared to 204 W for the old C1 type fixtures. Use of PK30d style lamps eliminate the need for lamp sockets and the high maintenance bi-pin type lamps.
- Lamp life is rated 1500 hrs at full brightness but typically 4000 – 6000 hrs in actual service. Easy re-lamping is accomplished without requirement for tools and involves loosening only one thumbscrew.
- Low maintenance design minimizes quantity of necessary spare parts. No small clips or lens holders are used, so lamp changes can be performed in the field by maintenance personnel wearing gloves.
- Many fixture components are compatible with ADB L861U type fixture to reduce spares requirements.
- Versatile optical system with 2-piece, 180-degree inner lenses allows for any combination of colours. Blanking shields and thru coloured outer lenses are also available for specific applications.
- Four screws allow for ease of leveling fixture after installation. Optional fixture leveling tool is available.



- Robust cast aluminum fixture body helps reduce damage caused by maintenance and snow removal equipment. Durable aviation yellow finish and stainless steel hardware provide for an extended fixture life.
- Fixture can have side or centre cable exit without requiring disassembly of fixture.
- Fixture has provision for mounting of edge light flags or markers with suitable mounting brackets.



Packaging

Assembled fixture c/w lens and lamp	
Weight	7 lb (3.2 kg) each fixture
Packaging Dimensions (4 fixtures per box)	15 x 15 x 16 in (38.1 x 38.1 x 40.6 cm)

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Ordering Code

5NQ3850CU - XXX - XX

Lens Configuration

0A = Clear Inner/Clear Outer
2AA = Clear/Yellow Inner Left, Clear Outer
2AB = Clear/Yellow Inner Right, Clear Outer
2BZ = Yellow Outer Only (Omni, Twy/Heliport)
4A = Red Inner/Clear Outer
4AA = Red/Blank Inner Left, Clear Outer
4AB = Blank/Red Inner Right, Clear Outer
4BZ = Red Outer Only (Omni, Twy)
5AA = Clear/Blue Inner Left, Clear Outer
5AB = Blue/Clear Inner Right, Clear Outer
5BZ = Blue Outer Only (Omni, Twy)
6AA = Red/Green Inner Left, Clear Outer
6AB = Green/Red Inner Right, Clear Outer
6BZ = Green Outer Only (Omni, Heliport)
XXX = Non-standard (Consult ADB SAFEGATE)

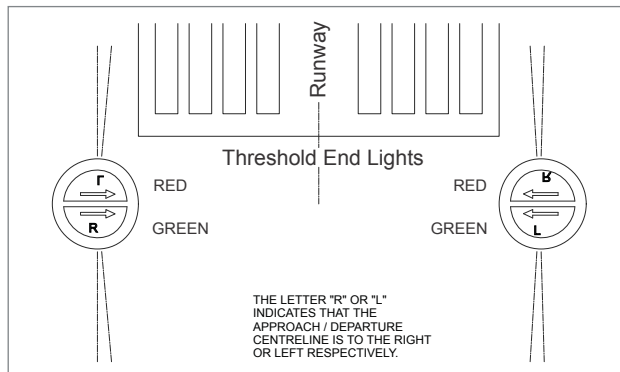
Lamp Size

45 = 45 W, 6.6 A PK30d Quartz Halogen¹
10 = 100 W, 6.6 A PK30d Quartz Halogen²
15 = 150 W, 6.6 A PK30d Quartz Halogen³
20 = 200 W, 6.6 A PK30d Quartz Halogen

Notes

1. 45 W Lamp is used for taxiway edge and heliport perimeter applications only. Refer to type L861U fixtures for standard taxiway edge light configuration.
2. 100 W Lamp is used for medium intensity threshold/end light configuration.
3. 150 W Lamp is used for standard H.I. edge lighting applications.

Inner Lens Configuration for Threshold/End Lights



Suggested Specification

The Runway Edge Light shall be high intensity, elevated, in full compliance with Transport Canada Specifications K311 and TP 312 and meet the requirements of FAA L-862 specification (AC 150/5345-46B) and with ICAO Annex 14, Vol. I, para. 5.3.9. for use in Category I, II and III systems.

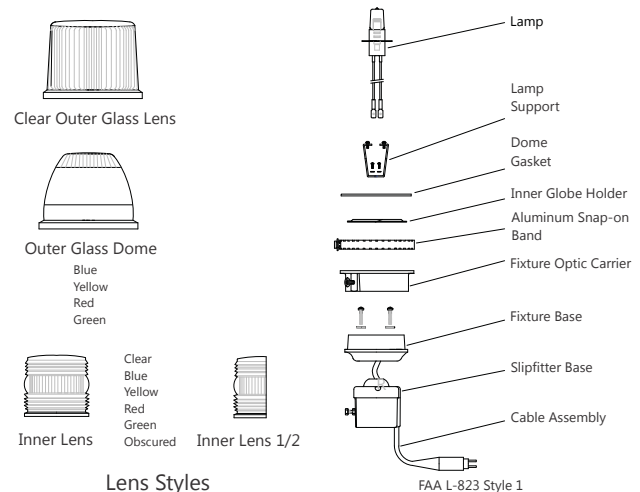
The prefocus halogen lamp shall be 150 W, 6.6 A, rated life of not less than 1500 hours at full intensity and approx. 4000 – 6000 hrs in actual service. The lamp shall be retained by a fool proof positioning device and should not require the use of any type of lamp socket. Lamp changes will be accomplished without the use of hand tools and without disassembly of the optical lenses.

Overall height of the light when installed, shall not exceed 350 mm and its total weight shall be 4 kg or less. The light shall consist of heavy-duty aluminum alloy castings for the body components, heat-resistant glass optical parts and plain stainless hardware. Gaskets and electrical wiring shall be high temperature resistant.

The light shall be suitable for direct installation on any standard 2" breakable coupling. The light shall resist jet blast from the heaviest present day aircraft and shall be frangible in case of impact.

The optical system shall consist of a double lens. Its outer component shall have an externally smooth surface to prevent accumulation of dirt. The inner lens shall be in one or two halves, through-coloured when required.

Fixture Exploded View



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